REMARKS

Claims 1-23 are presently pending in this application. Claims 1, 2, 7, 10, 15, 18, and 23 have been amended to correct minor typographical errors and/or improve the readability of these claims, and not for any reasons related to patentability. In the Office Action mailed February 6, 2008, all of the pending claims were rejected. More specifically, the status of the application in light of this Office Action is as follows:

(A) Claims 8 and 16 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite;

(B) Claims 1-5 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Published U.S. Patent Application No. US 2003/0021312 to Gruzdev et al. ("Gruzdev") and U.S. Patent No. 4,953,176 to Ekstrand ("Ekstrand");

(C) Claims 6, 14, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gruzdev, Ekstrand, and U.S. Patent No. 5,550,853 to Ostler ("Ostler");

(D) Claims 7-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gruzdev, Ekstrand, and Ostler; and

(E) Claims 15 and 17-21 were rejected under 35 U.S.C. § 102(b) over Gruzdev.

The undersigned attorney wishes to thank the Examiner for engaging in a telephone conference on June 4, 2008 to discuss the present Office Action, the applied references (Gruzdez and Ekstrand), and the pending claims. The applicant requests that this paper constitute the applicants' Interview Summary. If the Examiner notices any deficiencies with this paper in this regard, she is encouraged to contact the undersigned attorney to correct such deficiencies.

The following remarks summarize and expand upon the results of the June 4th telephone conference, and they also reflect the agreements reached between the

undersigned attorney and the Examiner during the telephone conference. For example, the following remarks reflect the Examiner's acknowledgement that the applied references Gruzdev and Ekstrand, either alone or in combination, do not appear to disclose or suggest a laser source and a power source arranged in an end-to-end series relation along a longitudinal axis such that the fan directs the air flow generally parallel with the longitudinal axis to pass first adjacent to the laser source and then to pass adjacent to the power source. Accordingly, in light of the tentative agreements reached during the June 4th telephone conference, the applicants respectfully request that the Section 103 rejection of claim 1 and the claims depending therefrom be withdrawn.

A. Response to Section 112 Rejection of Claims 8 and 16

Claims 8 and 16 were rejected under 35 U.S.C. § 112 second paragraph, as allegedly being indefinite. More specifically, the Office Action asserted that the phrase "the air flow in a direction to cool said laser source *before* cooling said power source" is indefinite. (Office Action, p. 2; emphasis in original.) The applicants respectfully disagree. For example, as discussed during the June 4th telephone conference and as disclosed in Figure 2 and Paragraph [0034] of the originally filed Specification, the fan 40 can generate air flow 44 in both a first direction and a second, opposite direction. Accordingly, the applicants respectfully submit that the features of claims 8 and 16 are not indefinite. Therefore, the Section 112 rejection of claims 8 and 16 should be withdrawn.

B. Response to Section 103 Rejection of Claims 1-5 and 8 (Gruzdev and Ekstrand)

Claims 1-5 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gruzdev and Ekstrand. As a preliminary matter, the Office Action states that claims 1-5 and 16 are rejected under Section 103 over Gruzdev and Ekstrand. The substantive portion of the Office Action addressing this particular rejection, however, addresses claims 1-5 and 8. (Office Action, p. 6.) Accordingly, the following remarks will address the Section 103 rejection of claims 1-5 and 8. The applicants respectfully request that the Examiner confirm or correct the applicants' understanding with respect to this matter.

As discussed and tentatively agreed upon during the June 4th telephone conference, the applied references Gruzdev and Ekstrand, either individually or in combination, fail to support a Section 103 rejection claim 1. For example, the Examiner acknowledged that Gruzdev does not appear to disclose or suggest a laser source and a power source arranged in an end-to-end series relation along a longitudinal axis such that the fan directs the air flow generally parallel with the longitudinal axis to pass (a) first adjacent to the laser source, and then (b) to pass adjacent to the power source. As discussed during the June 4th telephone conference, and in contrast with the claimed arrangement, the fan 530 in the cooling arrangment 510 of Figure 5 of Gruzdev directs air flow first over an electric motor 525 and then through apertures 527 and 529 and out of the cooling arrangement 510. Even assuming for the sake of argument that the electric motor 525 corresponds to the claimed power source (and the applicants expressly do not), the air flow in Gruzdev's system is generally opposite to the air flow in the laser of claim 1.

Furthermore, as discussed during the June 4th telephone conference, there is no suggestion or motivation to modify the cooling arrangement of Gruzdev to come up with the claimed combination of features. For example, the elaborate cooling arrangment 510 of Gruzdev includes rotatably moving a jacket 519 and spiral groove 517 within the jacket 519 relative to the laser rod 518. A liquid cooling medium is moved through the groove 517 and in the buffer space 548 of the assembly. The electric motor 525 is operably coupled to the jacket 519 to faciliate the rotational movement of the jacket 519 relative to the laser rod 518. (Gruzdev, [0040]–[0042].) The applicants respectfully submitt that it would require a significant reconfiguration of Gruzdev's device to come up with claimed power source in "end-to-end series relation along a longitudinal axis" with the laser source and the fan. The Office Action has not provided how such a modification could be achieved, or that such a modification would provide any benefit to Gruzdev's hand-held laser device. Furthermore, such a reconfiguration is inapposite to the specific and elaborate cooling arrangements disclosed in Gruzdev.

Moreover, as discussed during the June 4th telephone conference, the electric motor 525 is not a "power source for causing the laser source to generate a laser

beam," as recited in claim 1. As outlined above, the motor 525 is merely an electric motor having a magnetic clutch that is configured to "generate rotational motion of the jacket 519 including the internal spiral groove 517 relative to the laser rod 518." (Gruzdev, [0040].) The motor 525 is not in any way associated with causing the laser source to generate a laser beam.

Ekstrand fails to cure the above-noted deficiencies of Gruzdev to support a Section 103 rejection of claim 1. For example, as discussed during the June 4th telephone conference, Ekstrand specifically teaches one or more fans (e.g., fans 32 and 33 of Figure 2 of Ekstrand) configured to direct air flow perpendicular to a longitudinal axis of the laser. Nowhere does Ekstrand disclose or suggest that the fans are positioned to direct the air flow generally parallel with the longitudinal axis of the laser, as recited in claim 1. Accordingly, for at least the reasons discussed above, and in light of the tentative agreement between the Examiner and the undersigned attorney during the June 4th telephone conference, the Section 103 rejection of claim 1 and the claims depending therefrom (claims 2-5) should be withdrawn.

Claim 8 depends from base claim 7, and is allowable over the applied references Gruzdev and Ekstrand for reasons analogous to those discussed above with reference to claims 1-5, and for the additional features of this dependent claim. Therefore, the Section 103 rejection of claim 8 should be withdrawn.

C. Response to Section 103 Rejection of Claims 6, 14, and 22 (Gruzdev, Ekstrand, and Ostler)

Claims 6, 14, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gruzdev, Ekstrand, and Ostler. Claim 6 depends from allowable base claim 1, claim 14 depends from allowable base claim 7, and claim 22 depends from allowable base claim 15. As discussed above, Gruzdev and Ekstrand, either alone or in combination, fail to disclose or suggest all the features of claim 1. Ostler is relied on in the Office Action for disclosing a device with a shroud covering. (Office Action, p. 7.) Even assuming for the sake of argument that this is correct (and the applicants expressly do not), Ostler fails to cure the above-noted deficiencies of Gruzdev and Ekstrand, and therefore fails to support a Section 103

rejection of claim 1. As discussed below, the combination of Gruzdev, Ekstrand, and Ostler further fails to support a Section 103 rejection of base claims 7 and 15. Accordingly, dependent claims 6, 14, and 22 are allowable over the combination of Gruzdev, Ekstrand, and Ostler for at least the reason that these references, either alone or in combination, fail to disclose or suggest all the features of base claims 1, 7, and 15, and the additional features of dependent claim 6, 14, and 22 Therefore, the Section 103 rejection of claims 6, 14, and 22 should be withdrawn.

D. Response to Section 103 Rejection of Claims 7-13 (Gruzdev, Ekstrand, and Ostler)

Claims 7-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gruzdev, Ekstrand, and Ostler. For at least the reasons explained below, however, the applied references cannot support a Section 103 rejection of claims 7-13.

Independent claim 7 is directed to a laser having a laser source with a first end, a second end spaced apart from the first end along a longitudinal axis, a laser resonator, a laser media, and electrodes for exciting the laser media. The laser further includes a power source at least proximate to one of the first or second ends of the laser source such that the power source and the laser source are aligned along the longitudinal axis. The power source is adapted for causing the laser source to generate a laser beam from the other one of the first or second ends. The laser of claim 7 further includes a cooling fan positioned adjacent to the power source and located in a generally straight line path with the laser source and the power source along the longitudinal axis.

As discussed during the June 4th telephone conference, claim 7 is patentable over Gruzdev, Ekstrand, and Ostler under Section 103 because these references, either alone or in combination, fail to disclose or suggest a cooling fan positioned adjacent to the power source and located in a generally straight line path with the laser source and the power source along the longitudinal axis. In contrast to the claimed arrangement, Gruzdev's fan 530 is spaced apart from the outer casing 512 of Gruzdev's device and is positioned outboard of the electric motor 525. As discussed above, the electric motor 525 is not a "a power source at least proximate to one of the first or second ends of said

laser source and adapted for causing the laser source to generate a laser beam from the other one of the first or second ends," as recited in claim 7. Rather, as mentioned previously, the motor 525 is merely an electric motor configured to rotate the jacket 519 and internal spiral groove 517 around the laser rod 518 of Gruzdev's device.

Ekstrand and Ostler fail to cure the above-noted deficiencies to Gruzdev. For example, as discussed previously, Ekstrand specifically discloses one or more fans configured to direct air flow perpendicular to a longitudinal axis of the laser. Ostler is relied on in the Office Action for disclosing an electrode. (Office Action, p. 9.) The Office Action further asserts that it would have been obvious to "apply the well known electrode as suggested by Ostler to the laser of Gruzdev, because [it] could be used to simulate[] the laser." (Office Action, p. 9.) The applicants respectfully submit that such a modification of Gruzdev's device is impracticable. For example, Gruzdev is directed to a hand-held laser device. In contrast, the electrodes of Ostler's stationary laser device are large, relatively heavy structures. A person skilled in the art would not be motivated to modify Gruzdev's compact, hand-held laser device with the large electrodes of Ostler. Because the applied references Gruzdev, Ekstrand, and Ostler, either alone or in combination, fail to disclose or suggest all the claimed features, the Section 103 rejection of claim 7 should be withdrawn.

Claims 8-13 are patentable over Gruzdev, Ekstrand, and Ostler under Section 103 as depending from allowable base claim 7, and also because of the additional features of these dependent claims.

E. Response to Section 102 Rejection of Claims 15 and 17-21 (Gruzdev)

Claims 15 and 17-21 were rejected under 35 U.S.C. § 102(b) over Gruzdev. As discussed during the June 4th telephone conference and as set forth in detail below, Gruzdev cannot support a Section 102 rejection of claims 15 and 17-21 for at least the reason that this reference fails to disclose or suggest all the claimed features.

Independent claim 15, as amended, is directed to a laser comprising a laser source and a power source at least proximate to the laser source. The power source is adapted for causing the laser source to generate a laser beam. The laser also includes

a cooling fan at one end of the power source. The cooling fan is adapted for generating an air flow directed in a generally straight line path with the laser source and the power source for cooling the laser and power sources.

Claim 15 is patentable over Gruzdev under Section 102 because this reference fails to disclose or suggest a cooling fan at one end of the power source that generates an air flow directed in a generally straight line path with the laser source and the power source. In contrast with the laser of claim 15, Gruzdev's fan 530 is spaced apart from the outer casing 512 of Gruzdev's device and is positioned outboard of the electric motor 525. As discussed above, the electric motor 525 is not a power source "at least proximate to said laser source and adapted for causing the laser source to generate a laser beam," as recited in claim 15. Rather, as mentioned above, the motor 525 is merely an electric motor configured to rotate the jacket 519 and internal spiral groove 517 around the laser rod 518 of Gruzdev's device. Gruzdev accordingly fails to disclose or suggest the claimed cooling fan at one end of the power source that generates an airflow directed in a generally straight line path with the laser source and the power source. Because Gruzdev fails to disclose or suggest all the claimed features, the Section 102 rejection of claim 15 should be withdrawn.

Claim 15 is further patentable over Gruzdev under Section 103 because there is no suggestion or motivation to modify Gruzdev come up with the claimed combination of features. As discussed above with respect to claim 1, such modifications are not suitable in light of the teachings of Gruzdev.

Claims 17-21 depend from allowable base claim 15. Accordingly, the Section 102 rejection of claims 17-21 should be withdrawn for at least the foregoing reasons, and for the additional features of these dependent claims.

F. Claim 23

The applicants note that the Office Action does not specifically reject independent claim 23. Although the Office Action Summary indicates that claim 23 stands rejected, the Detailed Action omits any explanation of how any of the applied reference(s) anticipate or render obvious this claim. The applicants respectfully submit

that this omission amounts to a failure to articulate a *prima facie* case of unpatentablity and the burden to rebut this "rejection" has not yet shifted to the applicants. Consequently, a next Office action rejecting claim 23 cannot properly be made final since only then would the applicants be obligated to rebut the rejection, presuming that such an Office Action sets forth a *prima facie* case. (See MPEP § 706.07(a)).

Independent claim 23 includes several features generally similar to those of claim 7. Accordingly, claim 23 is patentable over the applied references for at least the reasons discussed above with reference to claim 7, and for the additional features of this independent claim.

Conclusion

In view of the foregoing, the pending claims comply with 35 U.S.C. § 112 and are patentable over the cited art. The applicants accordingly request reconsideration of the application and a mailing of a Notice of Allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of the application, the Examiner is encouraged to contact Aaron Poledna at (206) 359-3982.

Dated: 6/5/08

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